

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1 (currently amended): A tire comprising at least a first and a second bead radially extending to at least a first and a second sidewall, respectively, and said sidewalls joined to a tread; said first bead having a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located the axially outer end, and a carcass reinforcement formed of at least one carcass ply and anchored in said first bead to at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a tangent to the point of tangency of said meridian profile with said anchoring element of said first bead that forms relative to the axis of rotation an angle open towards the outside of less than 70° , and characterized in that said first sidewall further comprises:

- an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply, and
- a lower sidewall profiled rubber mix element extending radially between and connecting said annular bead anchoring element ~~[[and]]~~ with said additional sidewall ring, and located axially to the inside of said axially outermost carcass ply.

2 (currently amended): The tire according to Claim 1, wherein said additional sidewall ring is located radially at a distance H_2 , measured ~~[[form]]~~ from the base of said bead, at most equal to two-thirds of a height H of the tire mounted on the rim.

3 (original): The tire according to Claim 1, wherein a straight line D joining the two centers of gravity G_2 and G_4 of the meridian sections of said anchoring bead wire and of said sidewall ring, respectively forms an angle ϕ_1 open towards the outside of at most 70° with the axial direction.

4 (previously amended): The tire according to Claim 1, wherein said lower sidewall profiled rubber element comprises at least one compound having a Shore A hardness at least equal to 65 points.

5 (previously amended): The tire according to Claim 4, wherein said carcass reinforcement ply is anchored in said bead by winding around a bead wire of quasi-circular section to form an upturn extending into a wedge-shaped profiled rubber element having a Shore A hardness greater than 65 points, and wherein the cross-section of said wedge-shaped profiled rubber element corresponds to a

sector of a circle with an apex A radially beneath said anchoring bead wire, a radially upper side and a radially lower side extending from said apex and joined to a third side opposite said apex A, said radially upper side forming relative to the axis of rotation an angle of between 20° and 70° and said radially lower side forming with the same axis an angle of between 0° and 30°.

6 (original): The tire according to Claim 5, wherein said upturn of said carcass reinforcement ply has a length at least equal to the total perimeter of said wedge-shaped element, and whereby said ply forms said radially outer and inner sides of the wedge-shaped element and said side opposite said apex A and the end of said ply being located axially beyond said apex A of said outer and inner sides.

7 (original): The tire according to Claim 6, wherein said upturn of said carcass ply forms firstly said radially outer side of said wedge, then said side opposite said apex A, then finally said radially inner side of said wedge.

8 (original): The tire according to Claim 6, wherein said upturn of said carcass ply forms firstly said radially inner side of said wedge, then said side opposite said apex A, then finally said radially outer side of said wedge.

9 (currently amended): The tire according to Claim 1, wherein said carcass reinforcement comprises at least two carcass plies, [[and a]] the second ply, referred to as an axially innermost [[inner]] carcass ply, is located axially to the inside of said additional sidewall ring and axially to the inside of said lower sidewall profiled element which is radially connected ~~extending axially~~ between said bead anchoring element and said additional sidewall ring.

10 (canceled):

11 (original): The tire according to Claim 1, wherein said first bead B_E and respective first sidewall and said second bead B_I and respective second sidewall are symmetrical relative to the equatorial plane XX' of said tire.

12 (original): The tire according to Claim 1, wherein said first bead B_E and respective first sidewall and said second bead B_I and respective second sidewall are dissymmetrical relative to the equatorial plane XX' of said tire.

13 (canceled):

14 (currently amended) The tire according to Claim [[13]] 23, wherein said angle ϕ_{21} is greater than an angle ϕ_{2E} , formed relative to the axis of rotation by a tangent $T_E T'_E$ to the point of tangency T_E to said meridian profile with said bead anchoring element of said first bead B_E , and said angle ϕ_{21} is at most equal to 90° .

15 (currently amended): The tire according to Claim 14, wherein said second sidewall further comprises an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply of said carcass reinforcement in said second sidewall, a lower sidewall profiled rubber element located radially between and connecting an annular anchoring element of said second bead B_I [[and]] with said additional sidewall ring of said second sidewall.

16 (original): The tire according to Claim 12, wherein the second bead B_I has a seat the generatrix of which has its axially inner end on a circle of diameter less than the diameter of the circle on which is located its axially outer end, said second bead being intended to be mounted on a conventional rim seat extended axially to the outside by a rim flange.

17 (canceled):

18 (currently amended): The tire according to Claim [[17]] 24, wherein said second sidewall further comprises an inextensible additional sidewall ring and said angle ϕ_{21} is at most equal to 90° .

19 (canceled):

20 (original): The tire according to Claim 1, wherein said carcass reinforcement comprises at least one carcass ply having radial reinforcement elements.

21 (new): A tire comprising at least a first and a second bead radially extending to at least a first and a second sidewall, respectively, and said sidewalls joined to a tread; said first bead having a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located the axially outer end, and a carcass reinforcement formed of at least one carcass ply and anchored in said first bead to at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a tangent to the point of tangency of said meridian profile with said anchoring element of said first bead that forms relative to the axis of rotation an angle open towards the outside of less than 70° , wherein said first bead B_E and respective first sidewall and said second bead B_I and respective second sidewall are dissymmetrical with respect to the equatorial

plane XX' of the tire, wherein said first and second beads have respectively different diameters d_E and d_I respectively and wherein the sidewall radially extending the first bead comprises:

- an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply, and
- a lower sidewall profiled rubber mix element extending radially between and connecting said annular bead anchoring element with said additional sidewall ring, and located axially to the inside of said axially outermost carcass ply.

22 (new) A tire comprising at least a first and a second bead radially extending to at least a first and a second sidewall, respectively, and said sidewalls joined to a tread; said first bead having a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located the axially outer end, and a carcass reinforcement formed of at least two carcass plies anchored in said first bead to at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a tangent to the point of tangency of said meridian profile with said anchoring element of said first bead that forms relative to the axis of rotation an angle open towards the outside of less than 70° , and characterized in that said first sidewall further comprises:

- an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply, and
- a lower sidewall profiled rubber mix element extending radially between and connecting said annular bead anchoring element with said additional sidewall ring, and located axially to the inside of said axially outermost carcass ply;
- an axially innermost carcass ply located axially to the inside of said additional sidewall ring and axially to the inside of said lower sidewall profiled rubber mix element; and
- a crescent-shaped profiled rubber element posed axially to the inside of said axially innermost carcass ply and having a maximum axial thickness at the level of the line of maximum axial width of said tire and further having a minimum axial thicknesses at the

levels of the edges of a crown reinforcement in said tread and the carcass anchoring element, respectively.

23 (new): A tire comprising at least a first and a second bead radially extending to at least a first and a second sidewall, respectively, and said sidewalls joined to a tread; said first bead having a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located the axially outer end, and a carcass reinforcement formed of at least one carcass ply and anchored in said first bead to at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a tangent to the point of tangency of said meridian profile with said anchoring element of said first bead that forms relative to the axis of rotation an angle open towards the outside of less than 70° , wherein said first sidewall further comprises:

- an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply, and
- a lower sidewall profiled rubber mix element extending radially between and connecting said annular bead anchoring element with said additional sidewall ring, and located axially to the inside of said axially outermost carcass ply,

wherein said first bead B_E and respective first sidewall and said second bead B_I and respective second sidewall are dissymmetrical with respect to the equatorial plane XX' of the tire such that said second bead B_I has a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located its axially outer end, and a carcass reinforcement in said second sidewall formed of the at least one carcass ply and anchored in said second bead to one of said at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a constant direction of curvature and has a tangent $T_1T'_1$ to the point of tangency T_1 of said meridian profile with said anchoring element of said second bead that forms relative to the axis of rotation an angle ϕ_{21} open towards the outside and at least equal to 20° .

24 (new): A tire comprising at least a first and a second bead radially extending to at least a first and a second sidewall, respectively, and said sidewalls joined to a tread; said first bead having a seat the generatrix of which has its axially inner end on a circle of diameter greater than the diameter of the circle on which is located the axially outer end, and a carcass reinforcement formed of at least one

carcass ply and anchored in said first bead to at least one annular bead anchoring element, and when said tire is mounted on its operating rim and inflated to its recommended pressure, the meridian profile of said carcass reinforcement has a tangent to the point of tangency of said meridian profile with said anchoring element of said first bead that forms relative to the axis of rotation an angle open towards the outside of less than 70° , and characterized in that said first sidewall further comprises:

- an inextensible additional sidewall ring located axially to the inside of an axially outermost carcass ply, and
- a lower sidewall profiled rubber mix element extending radially between and connecting said annular bead anchoring element with said additional sidewall ring, and located axially to the inside of said axially outermost carcass ply.

wherein said first bead B_E and respective first sidewall and said second bead B_I and respective second sidewall are dissymmetrical with respect to the equatorial plane XX' of the tire, wherein the second bead B_I has a seat the generatrix of which has its axially inner end on a circle of diameter less than the diameter of the circle on which is located its axially outer end, said second bead being intended to be mounted on a conventional rim seat extended axially to the outside by a rim flange, and wherein, when said tire is mounted on the operating rim and inflated to the recommended pressure, the meridian profile of a carcass reinforcement in said second sidewall has a constant direction of curvature and has a tangent $T_I T'_I$ to the point of tangency T_I of said profile with an annular anchoring element of said second bead B_I that forms, relative to the axis of rotation, an angle ϕ_{2I} open towards the outside, and said angle ϕ_{2I} is greater than an angle ϕ_{2E} formed, relative to the axis of rotation, by a tangent $T_E T'_E$ to said meridian profile in said first sidewall at the point of tangency T_E of said meridian profile with said anchoring element of the first bead B_E .